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BATS

MASTERS OF THE NIGHT SKIES

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

BAT CONSERVATION
INTERNATIONAL

United States
Department of
Agriculture



National Agricultural Library



**COOPERATION FOR CHANGE
AND CONSERVATION**



B

**ATS ARE ESSENTIAL TO
HEALTHY ECOSYSTEMS**

RESPONDING TO BAT CONSERVATION

The Bureau of Land Management (BLM), the Forest Service (FS), and Bat Conservation International (BCI) have joined forces to conserve bats, their habitats, and the ecosystems upon which they depend. The BLM, FS, and BCI are also committed to educating people about the importance of bats on the Nation's public lands. This cooperation is crucial to protect bats and their ecosystems before more become threatened or endangered. Bats rank among North America's most rapidly declining, but ecologically and economically important animals.

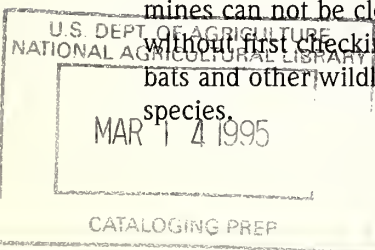
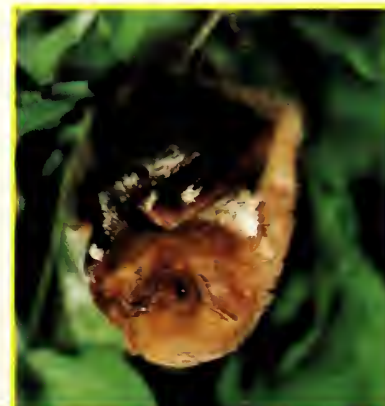
The 270 million acres of public lands administered by the Bureau of Land Management contain some of the most diverse and significant ecosystems in the Nation. The BLM has embarked on an extensive effort to manage these ecosystems for the benefit of all Americans. A key ingredient of this management effort is the BLM's *Fish & Wildlife 2000* Program, which outlines a comprehensive blueprint for managing these ecosystems and their associated fish, special status plants, and wildlife resources, including bats. The BLM recently has:

- Collaborated with BCI in implementing policy to protect bats roosting in abandoned mines.
- Funded a cooperative position with BCI for abandoned mine management.
- Sponsored training workshops on mine land management for bats and wildlife.
- Mandated a policy that mines can not be closed without first checking for bats and other wildlife species.

For the American people, the Forest Service manages 191 million acres of national forests and grasslands, provides assistance and information to private landowners through the State foresters offices, conducts a wide variety of research efforts, and provides international technical assistance on forestry issues. The Forest Service recently has:

- Cooperated with BCI in developing training programs for FS personnel to protect bats in abandoned mines.
- Launched a major research project to determine bat roosting needs in the Coconino National Forest.
- Installed gates at caves and mines that provide essential roosting habitat for bats.
- Developed interpretive programs on the importance of snags and artificial roost boxes to bats in California's San Bernardino National Forest and Blanchard Springs Caverns in the Ozark National Forest.

Bat Conservation International (BCI) was founded in 1982 as scientists around the world became alarmed about severe declines in bat populations. A primary goal of BCI is to educate people at all levels about the importance of bats, their ecosystems, and the need to protect them. Providing accurate information, workable solutions to problems, citizen training programs, and instruction for educators and wildlife managers are major parts of BCI's education program. In North America, many of the largest cave-dwelling bat populations are now protected as a result of BCI initiatives. The successful comeback of hundreds of thousands of endangered bats in these caves demonstrates that the situation for bats, though urgent, is not hopeless.



BAT BENEFITS

Bats are among the most gentle, beneficial, and even necessary animals on earth. They occupy almost every habitat worldwide and are the primary predators of vast numbers of insect pests that cost farmers and foresters billions of dollars annually. Bats also pollinate flowers and disperse the seeds that make the rain forests grow and the deserts bloom. Wherever bats are found, they are critical elements in nature's delicate web of life.

- A single little brown bat can catch 600 mosquitoes in just one hour.
- A colony of 150 big brown bats can eat 18 million cucumber beetles to protect local farmers from their rootworm larva each summer.
- The 20 million Mexican free-tails from Bracken Cave, Texas, eat 250 tons of insects nightly.
- In the wild, important agricultural plants from bananas, breadfruit, and mangoes to cashews, dates, and figs rely on bats for pollination and seed dispersal.
- Tequila is produced from agave plants whose seed production drops to 1/3,000th of normal without bat pollinators.
- Nectar-feeding bats are primary pollinators of giant cacti, including the famous organ pipe and saguaro of Arizona.
- Bat droppings in caves support entire ecosystems of unique organisms, including bacteria useful in detoxifying wastes, improving detergents, and producing gasohol and antibiotics.



BAT FACTS

- Bats are the only mammals that can fly.
- There are almost a thousand different kinds of bats comprising nearly a quarter of all mammal species.
- American bats come in an amazing variety. Some are brightly colored, while others have enormous ears or unusual faces that are adapted for their sophisticated navigational systems.
- Little brown bats are the world's longest-lived mammals for their size, with life spans sometimes exceeding 32 years.
- Pallid bats are immune to stings of scorpions and centipedes on which they feed.
- Bats can hear the footsteps of walking insects and use echolocation to detect objects as fine as a human hair.
- Mother Mexican free-tailed bats find and nurse their own young, even in huge colonies where many millions of babies cluster at up to 500 per square foot.
- Red bats, which live in tree foliage throughout most of North America, can withstand body temperatures as low as 23 degrees Fahrenheit during winter hibernation.
- Bats do not become entangled in hair or attack people. Even a sick bat typically will not bite unless handled. Left alone, bats pose no threat to humans.

B AT MANIA



Thousands of Mexican free-tailed bats migrate to Austin, Texas each spring to rear their young in crevices beneath the Congress Avenue Bridge. By August, more than 1.5 million bats emerge each evening in colonies that can be seen for miles and that attract thousands of wildlife enthusiasts and tourists. The bats also rid the Austin area of about 15,000 to 30,000 pounds of insects nightly.

BATS NEED YOUR HELP!



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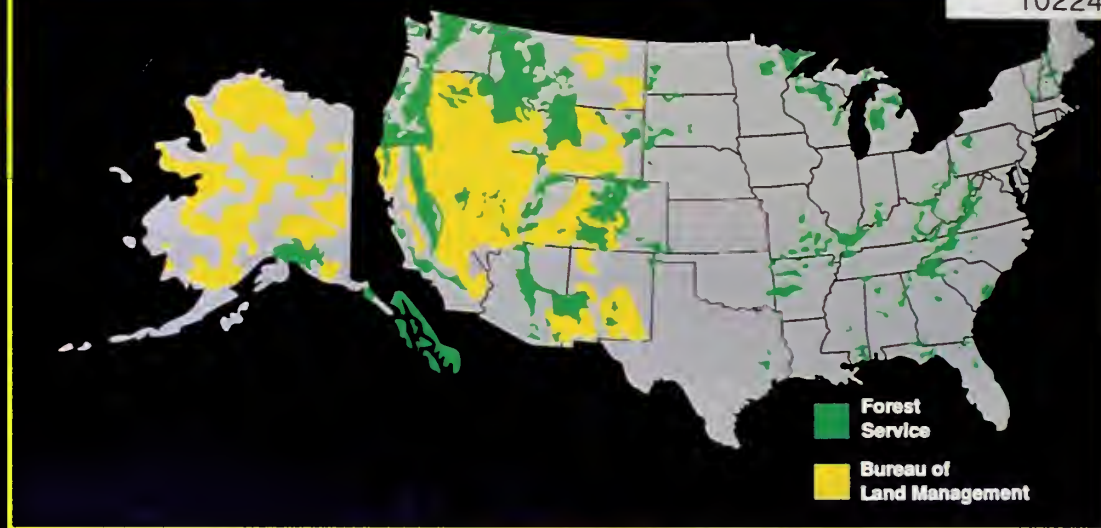
Bats are in serious decline nearly everywhere. Of the 43 species living in the United States and Canada, nearly 40 percent are endangered or are candidates for such status. Bats and their ecosystems must be properly managed and protected. Bats are essential allies in nature's delicate system of checks and balances.

The relationships between insect predators and their prey, and among plants, their animal pollinators, and seed dispersers are the result of millions of years of evolutionary interplay. Ecologists now know that even small disturbances can seriously threaten entire systems of plant and animal life. Loss of plant and animal diversity may be the most serious of long-term global problems we face.

The message is clear: if we fail to respond to the need for bat conservation, we gamble with the quality of human life. Never has a conservation issue been more timely. Never has a need been greater. We welcome your involvement. For more information about how you can make a difference, contact Bat Conservation International, the Forest Service, or the Bureau of Land Management.



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**BAT CONSERVATION INTERNATIONAL
NATIONAL HEADQUARTERS**

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BCI's logo is from an ancient Chinese design, commonly depicted in red, the color of joy. The Chinese view bats as symbols of good luck and happiness. The five bats symbolize the five blessings – health, long life, prosperity, love of virtue, and natural death. They surround the symbol of longevity.

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CARING FOR THE LAND AND SERVING PEOPLE